

## **Other UDOT Traffic Information Brochures:**

- Speed Limits
- School Zones
- Crosswalks
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- Left Turn Traffic Signals
- Pedestrian Signals

## **For More Information:**

Please contact a UDOT Regional  
Traffic Engineer located in your  
region of the State:

Northern Utah (801) 399-5921

Salt Lake County (801) 975-4900

Utah County (801) 227-8019

Southern Utah (435) 893-4799

Or visit the UDOT website at  
<http://www.dot.state.ut.us>

Utah Department of Transportation  
Division of Traffic and Safety  
4501 South 2700 West  
Salt Lake City, Utah 84114-3200

## **UDOT Traffic Information Brochure**

## **Left Turn Traffic Signals**



**Utah Department of  
Transportation**

**Division of Traffic  
& Safety**

**March 2002**



# Left Turn Traffic Signals

The Utah Department of Transportation (UDOT) has prepared this Traffic Information Brochure to educate concerned citizens interested in learning more about left turn traffic signals.

This brochure describes some of the advantages and disadvantages of left turn signal phasing along with answers to commonly asked questions.

Left turn phases at traffic signals are used to reduce delays and accidents to left turning vehicles. However, left turn phases may also increase delay to through traffic, decrease total intersection capacity, and reduce the efficiency of traffic signal coordination.

In order to balance the need to serve left turns against the needs of all traffic at an intersection, UDOT has adopted minimum conditions, called “warrants”, for the installation of left turn signals. The warrants identify minimum traffic volumes, delays, and traffic accident records that justify left turn signals.

When left turn signals are requested, UDOT conducts a traffic study to determine if conditions at the intersection meet the warrants. If so, the left turn signal is programmed for construction.

## Commonly Asked Questions:

### *Why are different types of left turn signals used ?*

There are two types of left turn signals commonly used by Utah Department of Transportation. The first type, called an exclusive only,

consists of three sections displaying green, yellow and red left arrows.

The second type of left turn signal is called an exclusive/permissive left turn and consists of five sections.

### **Exclusive Only Left Turn Signal**

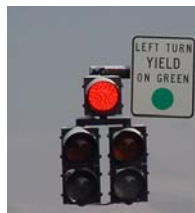
With this type of left turn signal, a driver is legally permitted to make a left turn only when the green left arrow is displayed and all opposing traffic is stopped. When the red arrow is displayed, it is illegal to turn left.

The exclusive only type of left turn signal is



used at double left turns and at locations where limited visibility or high speed of opposing traffic could make it difficult to make a left turn safely.

### **Exclusive Permissive Left Turn Signal**



The exclusive part of the left turn phase occurs when a green arrow is displayed to left turning drivers. All opposing traffic is stopped. During the permissive portion, a green circular indication is given and a motorist is allowed to make

a left turn after yielding to the opposing traffic.

### ***Why doesn't the left turn arrow come on every time when there is a vehicle in the left turn lane?***

Most exclusive/permissive left turn signals are designed to operate with ‘third vehicle actuation’. This means that the ‘exclusive’ left turn arrow will not turn on until there are at least three vehicles waiting in line.

In most cases, if there are only one or two vehicles turning left during one signal cycle, drivers are able to complete a left turn by finding gaps in the opposing through traffic. However, once the queue builds up beyond three vehicles, the exclusive left turn is programmed to turn on to help clear the left turning vehicles.

At most intersections, left turn traffic is only 10% to 20% of through traffic volumes. Therefore, providing an exclusive left turn for one or two vehicles on every green cycle would unnecessarily delay the great majority of traffic passing through the intersection. Displaying the left turn arrow only after three vehicles waiting in line helps reduce the total delay for all motorists in the intersection.

### ***How is a study for a new left turn signal requested?***

A written request must be made to the UDOT Region Traffic Engineer in your part of the State. You may obtain the appropriate name and address by contacting the local UDOT region office at the numbers listed on the back of this brochure.